road with very little added cost. This road at the present time looks fine and we are receiving many compliments on it.

The taxpayers of Wabash County are very much in favor of this resurface work. We increased our road maintenance levy, for 1926, six cents and had no opposition to the increase. Our heaviest farmer taxpayer said that we should have made it higher as the people want more resurfaced roads built by the highway maintenance department. There is not one faction in Wabash County today that is fighting us on this program. They are all for us—they want the roads.

USE OF ROCK ASPHALT ON COUNTY ROADS

By George Dix,
Clark County Highway Superintendent.

The Plant Road between Jeffersonville and Charlestown was built about 12 or 14 years ago. This is a macadam road and has been difficult to maintain, requiring reworking two or three times each year. It carries a very heavy truck and auto traffic from the northern section of the county, and is through a very low, swampy section.

The old road was built 16 feet wide with an average depth of about eight inches. We first scarified the entire width of the road and graded it to proper crown, (about 2¼ inches) and also widened it to at least 17 feet of stone with a 4 foot earth shoulder on either side.

We added 4 inches of new limestone from 3½ inches down to 2½ inches in size, rolling thoroughly with a 10 ton roller. Screenings were applied for filling voids, rolled thoroughly, and filled again with screenings, using hand brooms for working it in. We watered the road until no more water would penetrate it, and kept rolling until the mixture of water and screenings would push up in a wave in front of the roller. The road was allowed to dry thoroughly and then swept with hand brooms in order to give at last a half inch key for the rock asphalt to prevent crawling.

Before laying the rock asphalt, we swept and thoroughly cleaned the wearing surface. Where the base had been damaged or disturbed we repaired it before spreading the asphalt. The asphalt was laid on a dry base with the temperature at 50 degrees F. or above. The rock asphalt was dumped in piles

in the center of the road just ahead of our work. Excess asphalt was loaded in trucks and carried ahead.

After we spread the asphalt with shovels, all lumps were broken up and the material was shaped with heavy hand rakes. We continued the raking until the surface was free from honey-combed places, true to grade and of the proper thickness.

We used side forms about 3½ inches wide, and intermediate forms ⅜ inches in width, 1¼ inches thick spaced about five feet apart and laid parallel with the center line of the road to gauge the proper thickness. The height of these forms determined the depth of the course after it was completed. Before removing the side forms, the edge was tamped vertically with a hand tamp, and after the sides had been carefully taken away the edge was tamped at a 45 degree angle before we backed it up with earth.

After the material was raked, it was permitted to lie in the sun and heat until it took on a black oily appearance, when it was rolled with a 10 ton roller. The surface was rolled once each day for four days in succession. After the first rolling, we used extra material to bring up the low places and removed material from those that were too high, and the road was again rolled until all marks had disappeared. The pavement was not opened for traffic until after the final rolling.

The finished surface at no place varies more than ¼ inch from a cross-section template, nor from a 10 foot straight edge laid parallel to the center line of the pavement.

SALVAGING OLD PAVEMENTS BY USE OF BITUMINOUS MATERIALS

By H. C. Offutt,
District Engineer, Indiana State Highway Commission.

In doing work of this nature, we have found we get good results by confining ourselves to the use of a bituminous concrete made with a stone aggregate and a tar binder, and mixing both at normal temperature. We have used other variations and have obtained good results, but in this discussion we will touch only on this one kind of mix.

The work, while all done at the same time and by the same organization, is actually divided into two processes. All depressions which require filling, and which are not over one-